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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/501,685

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Tadayoshi Shiraishi

4435

7590

07/30/2008

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EXAMINER

O HERN, BRENT T

ART UNIT

PAPER NUMBER

1794

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DELIVERY MODE

07/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,685	Applicant(s) SHIRAISHI ET AL.	
	Examiner Brent T. O'Hern	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-7, 9-14 and 19-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :7/16/2004, 10/18/2004, 2/4/2005, 4/4/2005, 7/16/2007, 6/10/2008.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group II, claims 15-18 in the reply filed on 16 June 2008 is acknowledged. The traversal is on the ground(s) that the Groups are linked by a single invention, however, Applicant did not set forth how they are linked. This is not found persuasive because as stated in the Office action mailed 15 May 2008, the inventions are linked by the ubiquinone which is already known.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 15 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Udel (US 6,616,942).

Udel ('942) teaches a process for producing a ubiquinone supplementation food which comprises dissolving ubiquinone in an oil/fat under heating, and adding the obtained mixture to a food material (*See col. 3, ll. 7-45. Heating is interpreted as being subject to any external temperature including atmospheric and room temperature as no temperature is specified. The food limitation of claim 18 is interpreted as nominal and*

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any further limitations with respect to the food produced will possibly make claim 18 subject to a restriction requirement.).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 16 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Udel (US 6,616,942).

Udel ('942) teaches the mixture to be added to a food material is obtainable by dissolving ubiquinone in said oil/fat under heating, and solidifying the resultant (*See col. 3, ll. 7-45.*) and inherently teaches an oil/fat having a melting point of not lower than 20 °C (*See col. 2, ll. 13-39 and col. 3, ll. 18-40 where the medium chain triglyceride is interpreted as having melting point of not lower than 20 °C since medium chain triglycerides are known to be of 6 to 12 carbons in length such as lauric acid, C12:0, which is found in coconut oil with a melting point above 20 °C.*). In the alternative, a person having ordinary skill in the art would obviously appreciate or provide a medium chain triglycerides with said melting point. Thus, a rejection under 35 USC 102/103 is proper (*See MPEP 2112.*).

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Udel (US 6,616,942).

Udel ('942) teaches the mixture to be added to a food material is obtainable by dissolving ubiquinone in said oil/fat under heating, and solidifying the resultant (*See col.*

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3, *ll.* 7-45.), however, fails to expressly disclose wherein the oil/fat has a melting point of not lower than 20 °C.

However, Udel ('942) teaches adding medium chain triglycerides (*See col. 2, ll.* 13-39 and *col. 3, ll.* 18-40.). Medium chain triglycerides are known to be of 6 to 12 carbons in length such as lauric acid, C12:0, which is found in coconut oil with a melting point above 20 °C. Furthermore, Udel ('942) teaches adding wax to the oil as a stabilizer and waxes are known to have higher melting points than liquid oils and known to be present in rice bran and sunflower oils. It is known that fats and oils have various melting points including those similar to waxes due to their degree of saturation and carbon chain length. Furthermore, it is noted that the terms fat and oil are used interchangeably even though oils are generally interpreted as being liquids at room temperature and fats being solids at room temperature. Oils and fats originating from rice, soybeans, canola, tallow, etc. are known to comprise triglycerides with each triglyceride comprising different or the same fatty acids. Thus, a liquid oil such as rice, soybean and palm are known to comprise fatty acids such as stearic acid, C18:0, which individually if on all three chains or on one or two chains in combination with some other fatty acids such as palmitic, C16:0, or oleic acid, C18:1, is a solid at room temperature. An example of this is palm oil which often is not sold in northern climates during the winter time. The colder winter temperatures make it easier for the more solid fractions to freeze, thus making the oil cloudy and precipitation of hard fat. Thus, a liquid oil is known to comprise triglycerides that are fats with melting points above that of the bulk oil. The similar situation exists for most fats which are known to comprise linolenic,

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linoleic and oleic acid which can provide liquid oil triglycerides within a solid fat composition.

Thus, Udel's ('942) medium chain triglycerides either have the above melting point or it would have been obvious to add a medium chain triglyceride or a fat or oil having a higher melting point to thicken and or stabilize the mixture in a way substantially similar as wax does.

5. Claims 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selzer (US 2003/0113307) in view of Udel (US 6,616,942).

Selzer ('307) teaches a process for producing a ubiquinone supplementation food and a food which comprises dissolving ubiquinone in an oil such as soybean oil which is known to have a melting point lower than 20 °C and adding an emulsifier to form an oil in water emulsion to obtain a nutritious food material (*See paras. 11-25 and 34-41. As discussed above, heating is interpreted as being subject to any external temperature including atmospheric and room temperature as no temperature is specified. The food limitation of claim 18 is interpreted as nominal and any further limitations with respect to the food produced will possibly make claim 18 subject to a restriction requirement.*), however, fails to expressly disclose heating the mixture per independent claim 15 or the oil/fat having a melting point not lower than 20 °C per claim 16.

However, Udel ('942) teaches heating the mixture (*See col. 3, ll. 7-45.*) for the purpose of dissolving the oil and other ingredients and keeping the mixture liquid while combining (*See col. 3, ll. 7-45.*).

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Regarding the melting point of the oil/fat it is known that if the final food product is a solid then it is preferable for the ingredients to also be solid or become solid upon final processing. If the final food is preferred to be a liquid then it is desirable for the ingredients to be liquid or remain or become liquid upon final processing. Thus, since a triglyceride that is a liquid at room temperature or becomes a liquid upon heating have very similar properties it would have been obvious to a person having ordinary skill in the art to select an oil/fat that is a liquid at room temperature for a food that is liquid and selecting an oil/fat that is a solid at room temperature for a food that is a solid.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time Applicant's invention was made to heat the mixture either by exposure to ambient temperature or an external heat source as taught by Udel ('942) in Selzer ('307) to aid in the combination of the ingredients or an external source and to select an oil/fat that has a melting point above or below 20 °C depending on the final food product.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brent T. O'Hern whose telephone number is (571)272-0496. The examiner can normally be reached on Monday-Thursday, 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brent T O'Hern/
Examiner, Art Unit 1794
July 1, 2008